

## CLAIMS

1. Apparatus for detecting radiating and non-radiating electronic devices, comprising:

5 at least one non-radiating device sensor for actively transmitting a detection signal which detection signal is adapted to trigger a response from a normally non-radiating device;

at least one radiating device sensor for passively receiving a signal generated by a radiating device; and

10 synchronisation means for consecutively activating operation of the non-radiating device sensor and the radiating device sensor during sequential time slots.

2. The apparatus of claim 1 in which the at least one non-radiating device sensor includes a transmit / receive antenna for detection of metals and / or semiconductors.

3. The apparatus of claim 1 or claim 2 in which the at least one non-radiating device sensor includes a cable checking sensor.

20 4. The apparatus of claim 1 in which the at least one radiating device sensor includes any one or more of:

a receive antenna for detection of radiating devices;

an infra red sensor; and

25 a cable checking sensor for detection of electrical and / or electromagnetic signals on a cable.

5. The apparatus of claim 1 further including a non-radiating device detector coupled to the at least one non-radiating device sensor.

6. The apparatus of claim 1 further including at least one radiating device detector coupled to the at least one radiating device sensor.
7. The apparatus of claim 5 in which the at least one radiating device detector includes a harmonic receiver.
8. The apparatus of claim 5 in which the at least one radiating device detector comprises a broadband receiver.
- 10 9. The apparatus of claim 5 in which the at least one radiating device detector comprises any one or more of a digital voltmeter, an audio amplifier and an oscilloscope.
- 15 10. The apparatus of claim 1 further including digital signal processing means for processing signals output from any one or more of the at least one non-radiating device sensor and the at least one radiating device sensor.
11. The apparatus of claim 1 housed in a single portable casing.
- 20 12. The apparatus of claim 1 including said at least one radiating device sensor and at least two said non-radiating device sensors, the synchronisation means including means for allocating different time slots to each of the non-radiating device sensors and to the at least one radiating device sensor.
- 25 13. The apparatus of claim 1 in which the at least one radiating device sensor is provided in a first housing, and the at least one non-radiating device sensor is provided in a second housing, and in which the synchronisation means is distributed between the first and second housing,

further including communication means for communication between distributed portions of the synchronisation means.

14. Apparatus for detecting radiating electronic devices, comprising:

5 at least one radiating device sensor for passively receiving a signal generated by a radiating device;

communication means for communication with at least one remote non-radiating device sensor which sensor actively transmits a detection signal to trigger a response from a normally non-radiating device; and

10 synchronisation means for consecutively activating operation of the remote non-radiating device sensor and the local radiating device sensor during sequential time slots.

15. Apparatus for detecting non-radiating electronic devices, comprising:

15 at least one non-radiating device sensor for actively transmitting a detection signal to trigger a response from a normally non-radiating device; communication means for communication with at least one remote radiating device sensor which sensor passively receives a signal generated by a radiating device; and

20 synchronisation means for consecutively activating operation of the local non-radiating device sensor and the remote radiating device sensor during sequential time slots.

25 16. A method of detecting radiating and non-radiating electronic devices, comprising the steps of:

activating at least one non-radiating device sensor that actively transmits a detection signal which detection signal is adapted to trigger a response from a normally non-radiating device;

30 activating at least one radiating device sensor for passively receiving a signal generated by a radiating device; and

automatically synchronising the activation of the non-radiating device sensor and the radiating device sensor for consecutive operation of the non-radiating device sensor and the radiating device sensor during sequential time slots.

5

17. Apparatus for detecting radiating and non-radiating electronic devices, comprising any two or more of the following non-radiating device sensors and radiating device sensors and their associated detectors, selected from:

10 a non-linear junction detector / radio jammer; a metal detector, a harmonic receiver, a broadband detector, a spectrum analyser, a single and / or multiple frequency receiver, a frequency counter, a cable checker;

15 the non-radiating device sensors for actively transmitting a detection signal which detection signal is adapted to trigger a response from a normally non-radiating device and the radiating device sensors for passively receiving a signal generated by a radiating device; and

synchronisation means for enabling consecutive activation and operation of any non-radiating device sensors / detectors and radiating device sensors / detectors during sequential time slots.

20

18. Apparatus substantially as described herein with reference to the accompanying drawings.